

IN THE CLAIMS:

Please replace amended claims 1 and 4, and add new claims 5-11, as follow:

A4 1. A circuit for varying the integration time of moving charges from a photodetector comprising:

a first charge well for receiving moving charges from a photodetector;

at least one additional charge well; and

means for selectively switching said at least one additional charge well in parallel with said first charge well to vary the integration time of said moving charges, based on a brightness of a target.

A5 4. A method of varying the integration time of moving charges from a photodetector comprising the steps of:

supplying moving charges from a photodetector to an integration capacitance; and

selectively varying said integration capacitance to vary the integration time of said moving charges, based on a brightness of a target.

A6 5. The circuit of claim 1, wherein the means for selectively switching switches based on a range to the target.

6. The method of claim 4, comprising selectively varying the integration capacitance to vary the integration time of the moving charges based on a range to the target.

7. A circuit for varying the integration time of moving charges from a photodetector comprising:

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a first charge well for receiving moving charges from a photodetector;

at least one additional charge well; and

means for selectively switching the at least one additional charge well in parallel with the first charge well to vary the integration time of the moving charges, based on a rate at which the moving charges fill the first charge well.

8. The circuit of claim 7, wherein the means for selectively switching switches based on a remaining capacity of the first charge well.

9. The circuit of claim 7, wherein each charge well comprises a capacitor.

10. A method of varying the integration time of moving charges from a photodetector comprising the steps of:

supplying moving charges from a photodetector to an integration capacitance; and

selectively varying said integration capacitance to vary the integration time of said moving charges, based on a rate at which the moving charges fill the first charge well.

11. The method of claim 10, comprising selectively varying said integration capacitance to vary the integration time of said moving charges based on a remaining capacity of the first charge well.
